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#### **PVSTAR**

PVSTAR is the world's leading rooftop photovoltaic company under the Chint Group, with a registered capital of 2 million euros. SWISSTAR PV is the exclusive partner of PVSTAR in Switzerland, a member of Swissolar. We provide one-stop rooftop photovoltaic solutions with customized services and products. Application scenarios include residential, commercial, balcony and other rooftop scenarios. Adopting full life cycle management technology, we are committed to becoming a global leader in intelligent, one-stop photovoltaic energy solutions.

As the world's leading rooftop photovoltaic company, PVSTAR is committed to promoting renewable energy development and accelerating the world's early achievement of carbon neutrality. PVSTAR adheres to the concept of "worry-free service" and provides customers with a full range of services, including pre-sales, sales, and after-sales, to ensure that customers' rooftop photovoltaic systems can operate stably in the long term. We adhere to the business philosophy of "creating value for customers" and work with customers to create a better future. PVSTAR will continue to work hard to provide customers with better products and services and promote renewable energy development.



#### **CHINT Anneng**

Founded in 2015, CHINT Anneng is a rooftop PV company under the CHINT Group, with a registered capital of 300 million CHF. CHINT Anneng focusing on providing the end-users with all-in-one solutions, including rooftop PV systems co-development, purchase and leasing, covering the full range of design, installation and after-sales operation and maintenance. Up to now, CHINT Anneng's end-users has exceeded 1 million, with a market share of over 30%.



#### **Our Vision**

Committed to being a high-tech, light asset, platform based, service-oriented, and digitized world-leading comprehensive energy solutions provider to customer



#### **Our Mission**

Bring the world to green faster



#### **Business Philosophy**

Create value for customers as well as seeking promotion for employees and taking responsibility for society

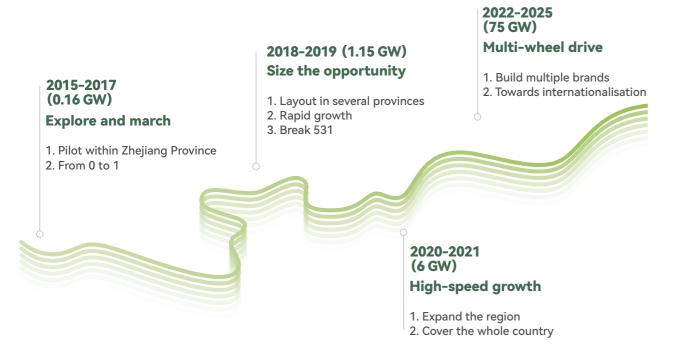


#### **Core Values**

Customer-centered, market-oriented, innovation-driven, striver-based, integrity-guided

#### **Company History**

Important milestones from 2015 to 2025



#### **Anneng in Numbers**

Dedicated to bringing more green power to the world.



24 Billion kWh

Million

30% Market share

Employees: 2,200.

#### **Business Scope**

Electricity:



#### **CHINT Group**

#### **Global strategic layout:**

global marketing centre + global research center + global production center + global logistics centre, etc;



#### **Energy Solution**

#### **One-Stop PV System Solution**



**Design Support** 



**Operation & Management** (O&M) Service



**Business Management Support** 



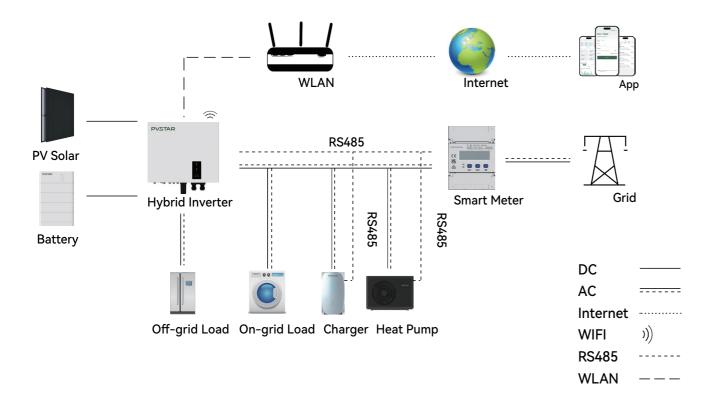
**Learning Centre** 



0 stock& lifetime quality garantee



**PVSTAR Cloud** 



#### **Partners**



#### **Standard**











#### **PVSTAR Home**

• 2-in-1 design, comforable instal-

• MTTP & Data monitoring, more

power generation, easier mainte-

• AL6005-T5,professional custom

• High-strength aluminium alloy material to ensure stability and

• 10-year product warranty,25-year

service-life guarantee;

nance;

Mountings

ized design;

strength;

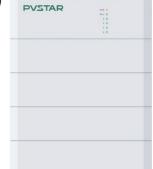
			F	Residential (	Optica	al Storage a	nd Cl	narging Sys	tem S	olution (Exa	ample	es)			
		Sii	ngle-ph	ase System						Three-phase S	ystem				
Product	Diagram	5kW+10kW	/h	6kW+10kW	/h	5kW+10kV	/h	8kW+10kV	Vh	10kW+15k\	Wh	12kW+15kV	Vh	12kW+20k\	Wh
Name	Diagram	Specifications and models	QTY	Specifications and models	QTY	Specifications and models	QTY	Specifications and models	QTY	Specifications and models	QTY	Specifications and models	QTY	Specifications and models	QTY
PV Modules		P/N,420W All Black	14	P/N,420W All Black	16	P/N,420W All Black	14	P/N,420W All Black	22	P/N,420W All Black	28	P/N,420W All Black	34	P/N,420W All Black	34
Hybrid Inverter	POSTAR	2MPPT 5kW-1PH	1	2MPPT 6kW-1PH	1	2MPPT 5kW-3PH	1	2MPPT 8kW-3PH	1	2MPPT 10kW-3PH	1	2MPPT 12kW-3PH	1	2MPPT 12kW-3PH	1
Battery Storage	Professional	LV 10kWh*1	1	LV 10kWh*1	1	HV 2.56kWh*4	1	HV 2.56kWh*4	1	HV 2.56kWh*6	1	HV 2.56kWh*6	1	HV 2.56kWh*8	1
AC Charging	•	7kW Single Phase	1	7kW Single Phase	1	11/22kW Three Phase	1	11/22kW Three Phase	1	11/22kW Three Phase	1	11/22kW Three Phase	1	11/22kW Three Phase	1
Heat Pump						Config	ure the p	oroduct according	g to the	actual situation					
PV Bracket		Flat/Inclined roof bracket system	1	Flat/Inclined roof bracket system	1	Flat/Inclined roof bracket system	1	Flat/Inclined roof bracket system	1	Flat/Inclined roof bracket system	1	Flat/Inclined roof bracket system	1	Flat/Inclined roof bracket system	1

For more info:Please contact us by Email or our Website

Solar Module + Battery Pack + Inverter (Micro Inverter) + V2G Charger (coming soon) Collector + Optimizer + Intelligent Power Sensor + RSD + Bracket + Cable + Cloud Platform + SmartApp







#### Inverter

- Multi-band hybrid inverter;
- 97% efficiency;
- Multiple MPPT link optimiser;

#### **Smart App**

• OneApp for smart home and energy management.

#### Heatpump

- High Efficiency A+++ Energy
- R290 Refrigerant, recognized as a refrigerant with the most development potential in the industry;
- Noise Reduction Technology;
- Full DC Inverter Technology;

#### **EV Charger**

- Single/three phase electric vehicle charger;
- 7kW、11kW、22kW;
- · 2-stage charging;

#### Li-ion battery system

- stackable design;
- · Safe and efficient;





Multi-master grid technology:Higher product power output and reliability



Anti-PID: PID caused degradation by optimization of production technology and material control



Adaptability in severe environments:High salt mist and ammonia resistance



Load capacity: Wind load up to 2400 Pa, heavy snow load up to 5400 Pa



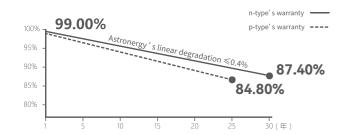
Safe & reliable: Low working temperature and high-pressure resistance



Eco-friendly: No fluorine and low lead for environment protection

#### Warranty

- 12-year product warranty
- 30-year linear output power warranty
- 30-year annual power degradation ≤0.4%(except 1st year)



Linear Degradation Curve

#### Certifications

- IEC 61215(2016), IEC 61730(2016)
- ISO 9001: 2015: Quality Management System
- ISO 14001: 2015: Environment Management System
- IOS 45001: 2018: Occupational Health and Safety
- IEC/TS 62941: Quality system for PV module manufacturing







R-05.5 mm
Ground hole

8-9 mm x 14 mm
Mounting hole

Packing Standard

Weight/Module:21.3kg

Pallet:36pcs/box
(Subject to sales contract)

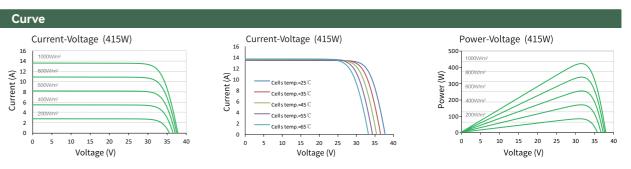
Weight of packing unit (for 40'HQ container):811kg

Modules per 40'HQ container:936pcs

Electrical Specifications								
Module		N(BL/H)HC- 15		(BL/H)HC- 20		I(BL/H)HC- 25		(BL/H)HC- 30
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Max. Power(Pmax)	415.0	312.1	420.0	315.8	425.0	319.6	430.0	323.4
Rated voltage(Vmp)	31.76	29.90	31.93	30.06	32.10	30.21	32.27	30.37
Rated current(Imp)	13.06	10.44	13.15	10.51	13.24	10.58	13.33	10.65
Open circuit voltage(Voc)	37.80	35.91	38.00	36.10	38.20	36.29	38.40	36.48
Short-circuit current(Isc)	13.76	11.11	13.87	11.20	13.98	11.28	14.09	11.37
Module efficiency(%)	21.30		21.50		21.80		22.00	
Max. system voltage(IEC/UL)	1000Vdc/1500Vdc							
Max. series fuse rating(A)	25A							
Power tolerance				0-	~+3%			
Temperature factor of max. power				-0.	29%/°C			
Temperature factor of open circuit voltage				+0.0	)43%/°C			
Temperature factor of short-circuit current			-0		0.25%/°C			
No. of diodes					3			
Nominal module operating temperature(NMOT)				4	1±2°C			

"STC:Irradiance 1000W/m2,Cell Temperature 25°C,AM=1.5; NMOT:Irradiance 800W/m2,Ambient Temperature 20°C,AM=1.5,Wind Speed 1m/s."

#### Mechanical Specifications Outer dimensions(LxWxH) 1722x1134x30mm Cell type N-type Mono-crstalline Number of cells 108 (6\*18) Frame technology Aluminum, black anodized 3.2mm Front glass thickness Cable length(IEC/UL) Portrait:(+)350mm,(-)250mm;Customized length Cable diameter(IEC/UL) 4 mm<sup>2</sup>/12 AWG Max mechanical test load 5400Pa(front)/2400Pa(back) Connector type(IEC/UL) HCB40/MC4-EVO2(optional)



For more info:Please contact us by Email or our Website





Multi-master grid technology:Higher product power output



Anti-PID: PID caused degradation by optimization of production technology and material control



Adaptability in severe environments:High salt mist and ammonia



Load capacity: Wind load up to 2400 Pa, heavy snow load up to 5400 Pa



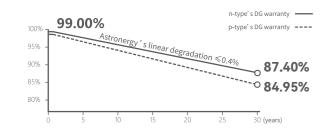
Safe & reliable: Low working temperature and high-pressure resistance



Eco-friendly: No fluorine and low lead for environment protection

#### Warranty

- 15-year product warranty
- 30-year linear output power warranty
- 30-year annual power degradation ≤0.4%(except 1st year)



Linear Degradation Curve

#### Certifications

- IEC 61215(2016), IEC 61730(2016)
- ISO 9001: 2015: Quality Management System
- ISO 14001: 2015: Environment Management System
- IOS 45001: 2018: Occupational Health and Safety







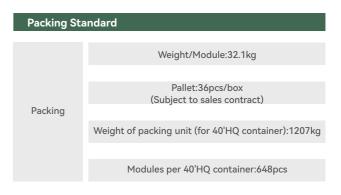








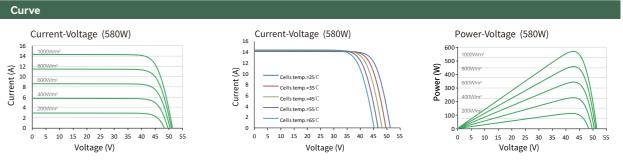




Electrical Specifications												
Module		M72N -BH-570		M72N -BH-575		M72N -BH-580		M72N -BH-585		M72N -BH-590		ч72N ВН-595
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Max. Power(Pmax)	570.0	428.6	575.0	432.4	580.0	436.2	585.0	439.9	590.0	443.7	595.0	447.4
Rated voltage(Vmp)	42.77	40.26	42.94	40.42	43.11	40.59	43.27	40.73	43.45	40.89	43.61	41.06
Rated current(Imp)	13.33	10.65	13.39	10.70	13.45	10.75	13.52	10.80	13.58	10.85	13.64	10.90
Open circuit voltage(Voc)	50.90	48.35	51.10	48.54	51.30	48.73	51.50	48.92	51.70	49.11	51.90	49.30
Short-circuit current(Isc)	14.10	11.39	14.19	11.46	14.28	11.53	14.36	11.59	14.45	11.66	14.53	11.73
Module efficiency(%)	22.10		22.30		22.50		22.60		22.80		23.00	
Max. system voltage(IEC/UL)						D	C 1500V	,				
Max. series fuse rating(A)							30A					
Power tolerance							0~+3%					
Temperature factor of max. power						-(	.29%/°C					
Temperature factor of open circuit voltage						+0	.043%/°	2				
Temperature factor of short-circuit current						-(	).25%/°C					
No. of diodes							3					
Nominal module operating temperature(NMOT)						A	41±2°C					

"STC:Irradiance 1000W/m2,Cell Temperature 25°C,AM=1.5; NMOT:Irradiance 800W/m2,Ambient Temperature 20°C,AM=1.5,Wind Speed 1m/s."

#### Mechanical Specifications Outer dimensions(LxWxH) 2278x1134x30mm Cell type N-type Mono-crstalline Number of cells 144(6\*24) Frame technology Aluminum, silver anodized Front/Back glass thickness 2.0+2.0mm Portrait:(+)350mm,(-)250mm;Customized length Cable length(IEC/UL) Cable diameter(IEC/UL) 4mm<sup>2</sup>/12AWG 5400Pa(front)/2400Pa(back) Max mechanical test load Connector type(IEC/UL) HCB40(Standard)/MC4-EVO2A(Optional)



For more info:Please contact us by Email or our Website



- Easy-to-install
- Quick & easy-to-install with basic tools.
- Quick setup and commissioning with PVSTAR Apps.
- Compact wall mount design.
- Reliable
- Smart energy management.
- UPS capability-power during blackouts.
- IP66 rated design for outdoor use.
- User-friendly
- User friendly App interface.
- Online monitoring via Wi-Fi and PVSTAR Apps.
- Easy to connect-battery and smart meter interface.

#### Certifications

• EN 50549-1,EN 61000-6-x, IEC 62109-1/2 IEC 62116, IEC 61727, IEC 61683





Model	PVS-A03k- SL2M-EU	PVS-A3.68k- SL2M-EU	PVS-A04k- SL2M-EU	PVS-A05k- SL2M-EU	PVS-A06k- SL2M-EU
DC input					
Max. PV input power	5500Wp	6180Wp	6500Wp	7500Wp	9000Wp
Max. PV input voltage			550V		م
MPPT voltage range/Rated input voltage		A	40V~530V/380V		
Min. input voltage/Start-up voltage			40V/50V		
No. of MPPTs/No. of PV srings per MPPT			2/1		
Max. input current per MPPT			16A		
Max. short-circuit current per MPPT			20A		
Battery input			/ O) /		
Nominal battery voltage Battery voltage range			48V		
Max. charging/Discharging power			40V~60V 5000W/5000W		
Max. charging/Discharging power  Max. charging/Discharging current			100A/100A		
Battery type			LiFePO4		
Compatible Battery			PVS-LB Series		
AC output					
Voltage range/Rated AC voltage		1	80V~280V/230V		
Rated grid frequency			50Hz/60Hz		
AC Grid frequency range		4!	5~55Hz/55~65Hz	Z	
Rated active power	3000W	3680W	4000W	5000W*1	6000W
Rated apparent power	3000VA	3680VA	4000VA	5000VA*1	6000VA
Max.apparent power	3000VA	3680VA	4000VA	5000VA*1	6000VA
Rated grid output current(@ 230V)	13.1A	16A	17.4A	21.7A* <sup>2</sup>	26.1A
Max. grid output current	13.6A	16A	18.2A	22.7A* <sup>2</sup>	27.3A
THDi(@ Nominal power)			< 3%		
<b>AC intput</b> Rated grid voltage			a.c.230V		
Rated grid voltage  Rated grid frequency			50Hz/60Hz		
Rated apparent power			6000VA		
Max. input apparent power from grid			6000VA		
Rated input current from grid			a.c.26.1A		
Max. input current from grid			a.c.27.3A		
AC output(EPS)					
Nominal output voltage			a.c.230V		
Nominal output frequency			50Hz/60Hz		
Rated apparent power			5500VA		
Max. output apparent power			5500VA		
Peak output apparent power. time Rated current(@230 V)			7500VA,10s		
Max. output current			21.7A 21.7A		
Max. switch time			≥1.7A ≤10ms		
Output THDi(@Linear load)			< 3%		
Efficiency			. 070		
MPPT efficiency			99.9%		
European efficiency/Max. efficiency			97.0%/97.6%		
Max. battery to load efficiency			94.70%		
Safety protection					
DC-side disconnection device			•		
PV string-/Battery input reverse polarity protection			•/•		
All-pole sensitive residual current monitoring unit			•		
Anti-islanding protection			•		
Ground fault protection  AC output over current/Short circuit current protection			•/•		
AC over voltage protection			0/0		
rotection class(IEC 62109-1)/Overvoltage category(IEC 62109-1)			I/AC:III;DC:II		
General data			177 (0.111,12 0.111		
Power factor at rated power/Adjustable displacement		≥0.99/0.	8 leading to 0.8	agging	
Dimensions(W/H/D)			mm/420mm/195		
Device weight			21.5kg		
Operating temperature range			-25°C~+60°C		
Noise emissions(Typical)			30dB(A)		
Standby consumption			<10W		
Cooling concept		Na	atural Convection	n	
Degree of protection(As per IEC 60592)			IP66		
Climatic category(According to IEC 60721-3-4)			4K4H		
Max. permissible value for relative humidity(Non-condensing)  Max. operating altitude		////////////	100% ∙3000m power d	erating)	
Features		4000111( >	Joodin power d	erauriy)	
User interface			LED & APP		
Communication with BMS			RS485/CAN		
Communication with smart meter			RS485		
Communication with portal			WIFI Stick		
Other communication			DRM		
Integrated power control/Zero export control			• / •		
● Standard features/ ○ Optional features/-not available					

<sup>\*</sup>All specifications are subject to change without notice. \*For more info:Please contact us by Email or our Website.

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<sup>\*1</sup> For VDE-AR-N4105,Smax=Sn=4600VA,Pn=4600W

<sup>\*2</sup> For AS/NZS4777.2,lac max=21.7A



- © Easy-to-install
- Quick & easy-to-install with basic tools.
- Battery and smart meter interface.
- Compact Wall-Mounted design.
- High reliability
- Supports 150% capacity ratio.
- Supports 100% three-phase unbalanced AC output.
- Real uninterruptible power supply, switching time < 10 ms.
- IP66 rated design for outdoor use.
- O User-friendly
- Quick setup and commissioning with PVSTAR Apps.
- Support a variety of application scenarios and operating modes, including depth of discharge, time of use and power settings.
- The maximum input current of 20A is perfectly suitable for high-power and bifacial modules such as 210/182.

#### Certifications

• EN 50549-1,EN 61000-6-x, IEC 62109-1/2 IEC 62116, IEC 61727, IEC 61683,IEC 60068





Model	PVS-A05k -TH2M-EU	PVS-A06k -TH2M-EU	PVS-A08k -TH2M-EU	PVS-A10k -TH2M-EU	PVS-A12k -TH2M-EU
DC input					
Recommended Max. PV input power	7500Wp	9000Wp	12000Wp	15000Wp	18000Wp
Max. PV input voltage			1100V		·
MPPT voltage range/Rated input voltage	150V~950	)V/600V		200V~950V/600V	
Min. input voltage/Start-up voltage			60V/180V		
No. of MPPTs/No. of PV strings per MPPT			2/1		
Max. input current per MPPT			20A		
Max. short-circuit current per MPPT			30A		
Battery input					
Battery voltage range			120V~600V		
Max. charging/discharging power	5000W	6000W	W0008	10000W	12000W
Max. charging/discharging current			30A		
Battery type			LiFePO4		
AC output					
Voltage range/Rated AC voltage		270V~480V,3L/N	I/PE,220/380V;230	/400V;240/415V	
Rated grid frequency			50Hz/60Hz		
Grid frequency range  Rated apparent power	50001/4	(000)/4	45~55Hz/55~65Hz		40000\/A
Max. apparent power	5000VA	6000VA 6000VA	8000VA 8000VA	10000VA	12000VA 12000VA
Rated grid output current(@400V)	5000VA 7.3A	8.7A	11.6A	10000VA 14.5A	12000VA 17.4A
Max. grid output current(@400V)	7.3A 8.0A	8.7A 9.6A	11.6A 12.8A	14.5A 16.0A	17.4A 19.2A
THDi(@Rated power)	0.UA	7.0A	< 3%	10.0A	17.ZA
AC intput			0,0		
Rated grid voltage		3L/N/PE.2	20/380V;230/400V	:240/415V	
Rated grid frequency			50Hz/60Hz	,	
Max. AC input power	10000W	12000W	16000W	20000W	24000W
Max. AC input current	14.5A	17.4A	23.2A	29.0A	34.8A
AC output(EPS)					
Rated output voltage		3L/N/PE,2	20/380V;230/400V	;240/415V	
Rated output frequency			50Hz/60Hz		
Rated apparent power	5000VA	6000VA	AV0008	10000VA	12000VA
Peak output apparent power, time		2 tin	nes the rated power	r,10S	
Rated current(@400V)	7.3A	8.7A	11.6A	14.5A	17.4A
Switching time			< 10ms		
THDv(@ Line power)			2%		
Efficiency					
MPPT efficiency			99.9%		
European efficiency/Max. efficiency	97.2%/98.0%	97.5%/98.2%		97.9%/98.4%	
Protection					
rge protection(Type II,according to EN/IEC 61643-11)			•		
Insulation resistance detection			•		
PV input reverse polarity protection			•		
Battery input reverse polarity protection  Ground fault monitoring			•		
Residual current detection					
AC short circuit protection			•		
Anti-islanding Protection					
General data					
Power factor/Adjustable range		1 de	efault(adjustable+/-	0.8)	
Dimensions(W/H/D)			5mm/465mm/205n		
Weight			24.5kg		
Operating temperature range			-25°C~+60°C		
Cooling mode			Natural		
Degree of protection(According to IEC 60592)			IP66		
Max. permissible value for relative humidity			100%		
Max. operating altitude			4000m		
Features					
User interface			LED&APP		
Communication with BMS			CAN		
Communication with smart meter			RS485		
Cloud platform monitoring mode			Wi-Fi/LAN		
Dry contact output/quantity			●/2		
Dry contact input/quantity			●/4		
Integrated power control/Zero export control			●/●		

<sup>\*</sup>All specifications are subject to change without notice.
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- IP66 rated design for outdoor use.
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- Support a variety of application scenarios and operating modes,including depth of discharge,time of use and
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#### Certifications

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Model	PVS-A08k-TH3M-EU	PVS-A10k-TH3M-EU	PVS-A12k-TH3M-EU
DC input			
Recommended Max. PV input power	12000Wp	15000Wp	18000Wp
Max. PV input voltage	, and p	1100V	P
MPPT voltage range/Rated input voltage		200V~950V/600V	
Min. input voltage/Start-up voltage		60V/180V	
No. of MPPTs/No. of PV strings per MPPT		3/1	
Max. input current per MPPT		16A	
Max. short-circuit current per MPPT		24A	
Battery input			
Battery voltage range		120V~600V	
Max. charging/discharging power	8000W	10000W	12000W
Max. charging/discharging current	0000	30A	12000
Battery type		LiFePO4	
AC output		LIFEF04	
Voltage range/Rated AC voltage	2701//9/	01/21 /N/DE 220/2801/-220//001/-	240/4151/
Rated grid frequency	2/07~480	0V,3L/N/PE,220/380V;230/400V;2	240/4150
Grid frequency range		50Hz/60Hz	
. , ,	00001/4	45~55Hz/55~65Hz	400001/4
Rated apparent power	8000VA	10000VA	12000VA
Max. apparent power	8000VA	10000VA	12000VA
Rated grid output current(@400V)	11.6A	14.5A	17.4A
Max. grid output current(@400V)	12.8A	16.0A	19.2A
THDi(@Rated power)		< 3%	
AC intput			
Rated grid voltage	3L/	N/PE,220/380V;230/400V;240/4	15V
Rated grid frequency		50Hz/60Hz	
Max. AC input power	16000W	20000W	24000W
Max. AC input current	23.2A	29.0A	34.8A
AC output(EPS)			
Rated output voltage	3L/	N/PE,220/380V;230/400V;240/4	15V
Rated output frequency		50Hz/60Hz	
Rated apparent power	8000VA	10000VA	12000VA
Peak output apparent power, time		2 times the rated power,10S	
Rated current(@400V)	11.6A	14.5A	17.4A
Switching time		< 10ms	
THDv(@ Line power)		2%	
Efficiency			
MPPT efficiency		99.9%	
European efficiency/Max. efficiency	97.2%/98.0%	97.9%/98.4%	97.9%/98.4%
Protection	7712707701070	711770.701170	771770770170
rge protection(Type II, according to EN/IEC 61643-11)		•	
Insulation resistance detection			
PV input reverse polarity protection		•	
Battery input reverse polarity protection			
Ground fault monitoring		•	
Residual current detection		•	
		•	
AC short circuit protection		•	
Anti-islanding Protection		•	
General data			
Power factor/Adjustable range		1 default(adjustable+/-0.8)	
Dimensions(W/H/D)		545mm/465mm/205mm	
Weight		26.0kg	
Operating temperature range		-25°C~+60°C	
Cooling mode		Natural	
gree of protection(According to IEC 60592)		IP66	
fax. permissible value for relative humidity		100%	
Max. operating altitude		4000m	
Features			
User interface		LED&APP	
Communication with BMS		CAN	
Communication with smart meter		RS485	
Cloud platform monitoring mode		Wi-Fi/LAN	
Dry contact output/quantity		●/2	
Dry contact output/quantity  Dry contact input/quantity		●/4	
tegrated power control/Zero export control			
		●/●	

\*All specifications are subject to change without notice. \*For more info:Please contact us by Email or our Website.

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- Safe-and-Reliable
- TYPE II Surge Protection for DC & AC.
- IP66 rated design for outdoor use.
- Fuse free design.
- **○High Yields**
- Shade solar shadow management.
- 32A input current each MPPT,ideal for bifacial and large area PV modules.
- 10MPPT's for flexible PV array design for higher yields.
- **○User-friendly**
- Support 7\*24H monitoring.
- Quick setup and commissioning with PVSTAR Apps.
- String-level Management.

#### Certifications

• EN 50549-1,EN 61000-6-x, IEC 62109-1/2, I EC 62116, IEC 61727, IEC 61683,IEC 60068





Model	PVS-A30k -TG8M-EU	PVS-A50k -TG8M-EU	PVS-A60k -TG8M-EU	PVS-A80k -TG8M-EU	PVS-A100k -TG10M-EU	PVS-A110k -TG10M-EU		
DC input								
Recommended Max. PV input power	45000Wp	75000Wp	90000Wp	120000Wp	150000Wp	165000Wp		
Max. PV input voltage	·		. 11	00V		·		
MPPT voltage range/Rated input voltage			200V~100	00V/630V				
Min. input voltage			20	0V				
No. of MPPTs/No. of PV strings per MPPT	3/2	5/2	5/2	8/2	10/2	10/2		
Max. input current per MPPT	26A	40/32/3	2/40/32A		32A			
Max. short-circuit current per MPPT  AC output	40A	40A 60/48/48/60/48A 48A						
AC voltage range		312~528V						
AC nominal voltage			220/380V	; 230/400V				
AC grid frequency/range			50Hz/45Hz~55Hz	z;60Hz/55Hz~65	Hz			
Rated active power	30000W	50000W	60000W	80000W	100000W	110000W		
Max. apparent power	30000VA	50000VA	60000VA	80000VA	100000VA	110000VA		
Max. grid output current	50.0A	80.0A	95.3A	127.0A	158.8A	174.7A		
Adjustable power factor range				to 0.8 lagging				
Feed-in phases			-	N-PE				
THDi(@Rated power)				3%				
Efficiency & Protection				0,0				
European efficiency		98.30%			98.40%			
Max. efficiency		, 0.00,	98	3.6%	70.1070			
DC switch				•				
Ground fault monitoring/grid monitoring				/ <b>•</b>				
DC reverse polarity protection/AC short circuit protection				/ <b>•</b>				
AC overcurrent protection				•				
DC surge protection				•				
AC surge protection				•				
Residual current Monitoring Unit				•				
Arc fault circuit interrupter (AFCI)				0				
Anti-islanding Protection				•				
Protection class (according to IEC 62109-1) / overvoltage category (according to IEC 62109-1	)		I/AC: I	II; DC: II				
General data								
Dimensions(W/H/D)	670/580/270mm	670mm/64	0mm/270mm	984	mm/640mm/330	mm		
Weight	42.0kg	43	3.0kg		86.0kg			
Operating temperature range			-25°C^	∕+60°C				
Cooling concept			Active	cooling				
Degree of protection(According to IEC 60592)			IP	66				
Max. operating altitude  Max. permissible value for relative	3000m		10	4000m				
humidity(non-condensing) Self-consumption (at night)		<1W	10		< 3W			
, ,		< 1 VV		1 . 1	< 3VV			
Topology			Non-i	solated				
Features			DC Dlv - :					
DC connector	OT 4 1	OT/DT		n connector	Taumain -1 /h4 0.4	0		
AC connector	OT connector	OI/DI c	onnector		Terminal (Max.24	UITIMZ)		
Mounting type  LED indicators  (Status (Fault (Communication))				nt bracket ●				
(Status / Fault / Communication)  Communication interface (RS485 / WiFi / 4G / LAN)				1010				
Certificates and approvals (more available on request)	(	CE, IEC 62109-			683, EN50549-1/	2		
● Standard/ ○ Optional								

\*All specifications are subject to change without notice.
\*For more info:Please contact us by Email or our Website.



- High-powered 2-in-1 microinverter with output power up to 1000 VA
- VDE-AR-N 4105 Standard, reactive power compensation
- Safety above rooftop with module-level rapid shutdown
- MTTP & Data monitoring, more power generation, easier maintenance
- 2-in-1 design, comfortable installation
- Sub-1G wireless solution allows stable communication with PVSTAR gateway DTU

#### Certifications





Model	HMS-800-2T	HMS-900-2T	HMS-1000-2T
DC input (PV)			
Adapted module power (W)	320~540+	360~600+	400~670+
Max. input voltage (V)	320 340.	65 V	400 070
MPPT operating voltage range (V)		16~60 V	
Start-up voltage (V)		22 V	
Max. input current (A)	2x14 A	2x15 A	2x16 A
Max. input short circuit current (A)	=	2x25 A	2.000
Number of MPPTs		2	
Max. input number per MPPT		_ 1	
AC output (on-grid)			
Rated output power	800 W	900 W	1000 W
Rated output current (A)	3.48 A	3.91 A	4.35 A
Nominal output voltage/range (V)[1]	230/180~275 V	230/180~275 V	230/180~275 V
Nominal frequency/range (Hz)[1]		50/45~55 Hz	
Power factor (adjustable)	>	0.99 default, 0.8 leading0.8 laggi	ng
Total harmonic distortion		< 3%	
Max. units per branch (10AWG)[2]	9	8	7
Max. units per branch (12AWG)[2]	5	5	4
Efficiency			
CEC peak efficiency	96.70%	96.5	50%
MPPT efficiency		99.80%	
Night power consumption (mW)		< 50	
Mechanical Data			
Operating temperature range		-40°C~+65°C	
Dimensions (W × H × D mm)		261x180x35.1 mm	
Weight (kg)		3.2 kg	
Protection Class		IP67 (outdoor)	
Cooling		Natural convection-No fans	
Protection Feature			

Anti-islanding protection, DC reverse polarity protection, AC short-circuit protection, AC over-current protection, over-voltage protection, 6000 V surge protection

#### **General Specification**

Active power regulation, reactive power regulation, high voltage ride-through (optional), low voltage ride-through (optional), high frequency transformer isolation

#### Others

Communication	Sub-1G
Type of isolation	Galvanically Isolated HF Transformer
Monitoring	Taichi Cloud
Compliance	EN 50549-1: 2019, VDE-AR-N 4105: 2018, VFR2019,

IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 61000-3-2/-3

\*All specifications are subject to change without notice. \*For more info:Please contact us by Email or our Website.

- Rated voltage/frequency range can be changed according to local requirements.
- Please refer to local requirements for exact number of microinverters per branch.

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- Three-phase output, wider scope of application
- Safety above rooftop with rapid shutdown and high frequency isolated transformer
- Max output power 2000VA, suitable for 182 mm/210 mm modules
- 4-in-1 design for faster installation with less cost
- Sub-1G wireless solution ensures stable communication in all environments

#### Certifications





Model	HMT-1600-4T	HMT-1800-4T	HMT-2000-4T
DC input (PV)			
Adapted module power	320~540+	360~600+	400~670+
Max input voltage		65 V	
MPPT operating voltage range		16~60 V	
Start-up voltage		22/60 V	
Max. input current	4x14 A	4x15 A	4x16 A
Max. input short circuit current		4x25 A	
Number of MPPTs		2	
Max. input number per MPPT		2	
AC output (on-grid)			
Rated output power	1600 W	1800 W	2000 W
Rated output current (A)	2.32x3	2.61x3	2.90x3
Nominal output voltage/range (V)[1]		230/400, 3 W+N+PE	
Nominal frequency/range (Hz)[1]		50 Hz	
Power factor (adjustable)		> 0.99 default	
Total harmonic distortion		< 3%	
Max. units per branch(10AWG)[2]	13	7	6
Max. units per branch(12AWG)[2]	8	12	11
Efficiency			
CEC peak efficiency		96.50%	
MPPT efficiency		99.80%	
Night power consumption (mW)		<50	
Mechanical Data			
Operating temperature range		-40°C~+65°C	
Storage temperature range		-40°C~+85°C	
Dimension (W × H × D mm)		326x222x40.6 mm	
Weight (kg)		5.9 kg	
Protection Class		IP67 (outdoor)	
Cooling		Natural convection-No fans	
Others			
Communication		Sub-1G	
Type of isolation		Galvanically Isolated HF Transforme	r
Monitoring		Taichi Cloud	
Compliance		-N 4105: 2018, EN 50549-1:2019, V -2, IEC/EN 61000-6-1/-2/-3/-4, IEC	

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- Rated voltage/frequency range can be changed according to local requirements.
- Please refer to local requirements for exact number of microinverters per branch.

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- Easy-to-install
- Lithium iron phosphate safety cell technology.
- All-round protection by BMS.
- High reliability
- IP65 protection level, support outdoor use.
- The industry's top battery cells.
- User-friendly
- Multi-mode settings are compatible with more user usage scenarios.
- Online monitoring through the PVSTAR Apps.

#### Certifications

• IEC 62619, IEC EN 61000-6-x,IEC 62040,UN38.3









Model	PVS-LB 5k-Pro	PVS-LB 10k-Pro			
System parameters					
Battery type	LiFe	PO4			
Battery module	PVS-BESS16	100LFP-A-L			
NO. of power module	1	1			
Rated capacity	5.12kWh	10.24kWh			
Rated battery voltage	51.	2V			
Battery voltage range	44.8V <sup>^</sup>	-58.4V			
Max. charging/discharging power	3.07kW/5.12kW	6.14kW/6.14kW			
General parameters					
Dimensions(W/D/H)	460mm/165mm/652mm	550mm/165mm/867mm			
Battery system weight	57kg	116kg			
Installation location	Indoor/0	Outdoor			
Installation	Floor Stand/N	Wall Mounted			
Operating temperature range	"Charging:0°C~55°C Di	scharging:-20°C~55°C"			
Storage temperature range	-20°C	~55°C			
Cooling concept	Nat	ural			
Degree of protection	IPe	65			
Relative humidity	5%~95%,No o	condensation			
Max. operating altitude	300	00m			
Scalability	Up to 32 groups in parallel	Up to 16 groups in parallel			
Communication	CAN/RS485/W	ifi/Dry contact			
Certification&Standard	TUV/IEC 62619/IEC 626	040/IEC 61000/UN38.3			
No. of cycles	6000 Cycles				

\*All specifications are subject to change without notice. \*For more info:Please contact us by Email or our Website.



- Easy-to-installModule mating design.
- Quick connection between battery and inverter.
- Quick and easy installation with basic tools.
- Stable,anti-tipping design.
- High reliability
- IP65 protection rating.
- Cell-level monitoring.
- Lithium iron phosphate safety cell technology.
- BMS all-round protection.
- User-friendly
- Stackable and expandable up to 81.92kWh(8 modules in a single system,4 systems in parallel).
- It supports a variety of application scenarios:self-consumption,peak shaving,peak-to-valley arbitrage,etc.
- Online monitoring through the PVSTAR Apps.

#### Certifications

• IEC 62619, IEC EN 61000-6-x,IEC 62040,UN38.3 IEC 63056









Model	PVS-HB 075A	PVS-HB 100A	PVS-HB 125A	PVS-HB 150A	PVS-HB 175A	PVS-HB 200A			
System Parameters									
Battery module			PVS-BESS-H	B051050A					
Battery type			LiFeP	04					
NO. of power module	3	4	5	6	7	8			
Total capacity 1	7.68kWh	10.24kWh	12.80kWh	15.36kWh	17.92kWh	20.48kWh			
Usable capacity 2	6.91kWh	9.21kWh	11.52kWh	13.82kWh	16.12kWh	18.43kWh			
Rated voltage	153.6V	204.8V	256.0V	307.2V	358.4V	409.6V			
Operating voltage	120.0V~175.2V	160.0V~233.6V	200.0V~292.0V	240.0V~350.4V	280.0V~408.8V	320.0V~467.2V			
Max. input current		25A							
Max. output current		30A							
General parameters									
Dimensions(W/D/H)	540*390*600mm	540*390*730mm	540*390*860mm	540*390*990mm	540*390*1120mm	540*390*1250mm			
Module weight			35.0	кg					
Battery system weight	106.5kg	137kg	167.5kg	198kg	228.5kg	259kg			
Installation location			Indoor/O	utdoor					
Installation			Floor Stand	d(Stack)					
Operating temperature range		Charg	ing:0°C~50°C/Disc	charging:-20°C~50	0°C				
Storage temperature range			-20°C~	45°C					
Cooling concept			Natu	ral					
Degree of protection			IP6	5					
Relative humidity			5~95 %,No co	ndensation					
Communication			CAN	1					
Certifications&Standards		IEC 6	62619/IEC 62040/	TEC 61000/UN38.	.3				
No. of cycles			6000 Cy	/cles					

\*All specifications are subject to change without notice. \*For more info:Please contact us by Email or our Website.

- Definition of rated power condition:Battery voltage 2.5~3.65V,0.5C charge and discharge at +25°C.
- Definition of the available power condition:90%DOD,0.5C charge and discharge at +25°C.
- The available energy may very depending on discharge, charging, environmental conditions, and residential-defined SOC limits.
- The number of cycles condition is defined:80%DOD,0.2C charge and discharge at +25°C."

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# Solutions

The product is composed of high-efficiency module, micro-inverters, photovoltaic brackets and corresponding accessories and cables, which can be installed on empty and scattered plots such as balconies and fences for household use, breaking the traditional solar panel installation mode, and achieving advantages such as more energy, easier installation, lower cost and higher protection.



#### Convenience

Product kits are shipped as a separate package, in compliance with - shipping standards to prevent breakage. Different types of AC socket options, in line with the national standard AC end cable plus smart socket table, can connect the system directly to the grid.



#### High Efficiency

The product uses high-efficiency module technology and micro-inverters to realize MPPT power tracking at the module level and ensure the maximum power generation efficiency of the system



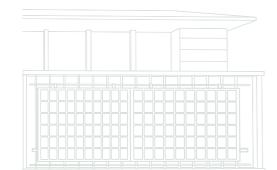
#### Security

The micro-inverter configured in the system has the functions of circuit-breakers and optimizer to realize the monitoring of the running status of a single module and ensure the safety of the system, and is configured with functions as anti-island protection, short-circuit protection and overvoltage protection.



#### Intelligence

The product is equipped with an integrated data collector, which enables users to log in to the cloud platform on the mobile phone or computer to view data such as system running status and power generation.



## Topological diagram





## Product Features



















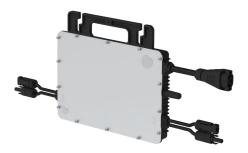
#### Equipment specifications: Solar modules

Rated peak powe	420W		
Rated peak voltage	31.93V		
Rated peak current	13.15A		
Open circuit voltage	38V		
Short-circuit current	13.87A		
module dimensions (L x W x H)	1722x1134x30mm		
Cell	N-type monocrystalline silicon		
Number of cells	108 (6*18)		
	21. 3 kg		
module weight	21. 3 kg		



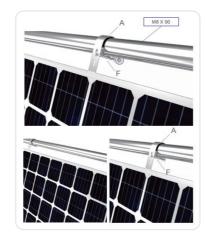
#### Equipment specifications: Micro inverter

Micro inverter	800w		
Number of connectors to enter MC4	2set		
MPPT voltage range	16V-60V		
Operating voltage range	22V-60V		
Maximum input voltage	50V		
Starting voltage	22V		
Standard output voltage/range	230V/180V-275V		
Rated output current	3.48A		
Maximum input current	14A*2		
Rated output frequency/frequency range	50Hz/45HZ-55Hz		
Weight	3.2KG		
Waterproof rating	IP67		
Network connection	Built-in Wi-Fi		
Dimensions (W*H*D)	261x180x35.1mm		

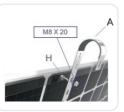


#### **Application scenario**

 $Application\ scenario:\ the\ installation\ method\ of\ fixing\ hooks\ on\ balcony\ railing\ is\ as\ follows,\ and\ the\ installation\ Angle\ is\ 0°.$ 

























Colorful Touch



**Energy Level** 



ASA Material



KEYMARK





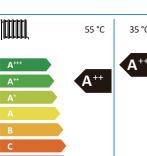




ENERG Y UA

ENERG Y UA

ENERGY ENERGY IE IA



#### R290 Refrigerant

To reduce carbon emission to the environment and curb global warming, PVSTAR develops R290 air to water heat pump -GreenTherm Series. With many advantages such as low carbon emission and high efficiency, R290 refrigerant is recognized as a refrigerant with the most development potential in the industry, which contributes to the reduction of carbon emission and help achieve the global goal of carbon neutrality.

#### High Efficiency A+++ Energy Level

GreenTherm Series Air to Water Heat Pump is specially developed with the most cutting-edge heat pump technology and modern design to meet stringent requirements for efficiency, stability and quietness. Not only does GreenTherm Series use R290 green gas and inverter EVI technology, but also is rated with A+++ energy label under 35°C water outlet. With top energy rating A+++, the unit is energy efficient and can greatly reduce energy bills for users.

Model	PVS-20U	PVS-30U	PVS-40U	PVS-40SU	PVS-60U	PVS-60SU
Power Supply	220~240V/50Hz	220~240V/50Hz	220~240V/50Hz	380~415V/50Hz	220~240V/50Hz	380~415V/50Hz
Heating Condition-Ambient Temp	Heating Condition-Ambient Temp.(DB/WB):7/6°C,Water Temp.(In/Out):30/50°C					
Nominal Capacity	6kW	8kW	10kW	10kW	17kW	17kW
Heating Capacity Range	1.80~9.75kW	2.40~12.30kW	4.56~14.59kW	4.56~14.45kW	5.30~22.30kW	6.10~22.30kW
Heating Power Input Range	0.49~2.08kW	0.68~3.10kW	1.20~3.86kW	1.19~3.78kW	1.75~5.50kW	1.28~5.50kW
Heating Condition-Ambient Temp	p.(DB/WB):7/6°C,Water Temp.(In/Out):50/55°C					
Nominal Capacity	5.5kW	7.5kW	9.3kW	9.3kW	17kW	17kW
Heating Capacity Range	2.25~8.54kW	3.00~11.20kW	3.62~13.04kW	3.61~12.91kW	6.09~21.70kW	6.08~21.89kW
Heating Power Input Range	0.93~3.09kW	1.25~4.06kW	1.45~5.31kW	1.44~5.21kW	2.43~7.89kW	2.42~7.89kW
Cooling Condition-Ambient Temp.	(DB/WB):35/24°C	,Water Temp.(In/0	Out):23/18°C			
Cooling Capacity Range	2.10~9.40kW	4.80~11.00kW	4.16~13.50kW	4.16~13.50kW	3.20~22.00kW	5.84~21.22kW
Cooling Power Input Range	0.50~2.80kW	0.88~4.00kW	1.48~4.82kW	1.50~4.87kW	1.30~8.10kW	2.36~8.11kW
Cooling Condition-Ambient Temp.(D	)B/WB):35/24°C,\	Water Temp.(In/O	ut):12/07°C			
Cooling Capacity Range	1.60~6.89kW	2.2~9.10kW	3.11~10.47kW	3.12~10.47kW	3.90~17.10kW	4.52~17.20kW
Cooling Power Input Range	0.60~2.64kW	0.92~4.20kW	1.34~4.45kW	1.35~4.46kW	1.80~7.58kW	1.73~7.63kW
Max. Power Input	3.90kW	5.10kW	6.30kW	6.30kW	8.52kW	9.10kW
Max. Current Input	17.0A	22.0A	30.0A	12.2A	36.1A	16.1A
Refrigerant Type			R2	90		
Refrigerant Volume	0.75kg	0.80kg	0.98kg	0.98kg	1.40kg	1.40kg
Sound Pressure(1m)	45dB(A)	46dB(A)	46dB(A)	46dB(A)	48dB(A)	48dB(A)
Sound Power Level(EN12102)	60dB	61dB	60dB	60dB	67dB	67dB
Net Weigh	105kg	120kg	145kg	159kg	205kg	220kg
Unit Dimension(L/W/H)	1167*407*795mm	1167*407*795mm	1287*458*928mm	1287*458*928mm	1250*540*1330mm	1250*540*1330mm
Shipping Dimension(L/W/H)	1300*485*940mm	1300*485*940mm	1420*540*1080mm	1420*540*1080mm	1380*570*1480mm	1380*570*1480mm
Compressor	HIGHLY					
Circulation Pump	Yes					
Operating Ambient Temperature	-25~43°C					
Fan Quantity	1	1	1	1	2	2
Fan Motor Type	DC motor					
Water Connection(inch)	1	1	1	1	1	1
Rated Water Flow	1.03m³/h	1.38m³/h	1.70m³/h	1.70m³/h	2.90m³/h	2.90m³/h
Water Pressure Drop @Rated Water Flow	v 15kPa	15kPa	20kPa	20kPa	40kPa	40kPa
Circulation Pump Head @Rated Water Flo	w 7.5m	6.8m	5.6m	5.6m	10.5m	10.5m
Cabinet Type	Galvanized sheet+ABS	Galvanized sheet+ABS	Galvanized sheet+ABS	Galvanized sheet+ABS	Galvanized sheet+ABS	Galvanized sheet+ABS

\*All specifications are subject to change without notice.
\*For more info:Please contact us by Email or our Website.

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- Integrated with 6mA DC fault current detection.
- IP65 protection suitable for both indoor and outdoor usage.
- Smart management
- Automatic phase-switching to optimize solar surplus.
- Capable for load management and balancing to prevent overload\*.
- Beyond charging-maximum usage of solar energy together with PVSTAR Hybrid Inverter\*\*.
- Flexible application
- Applicable for OCPP communication.
- Different charging modes to fit all needs\*\*\*.
- Adaptable access control with RFID-Cards.
- Control and visualization via App.
- User Friendly
- Fast installation with Poke-Yoke connector.
- Integrated with MID meter.

#### Certifications

• IEC 61851-1/22, IEC 62196-1, IEC 62955, IEC 60068-2





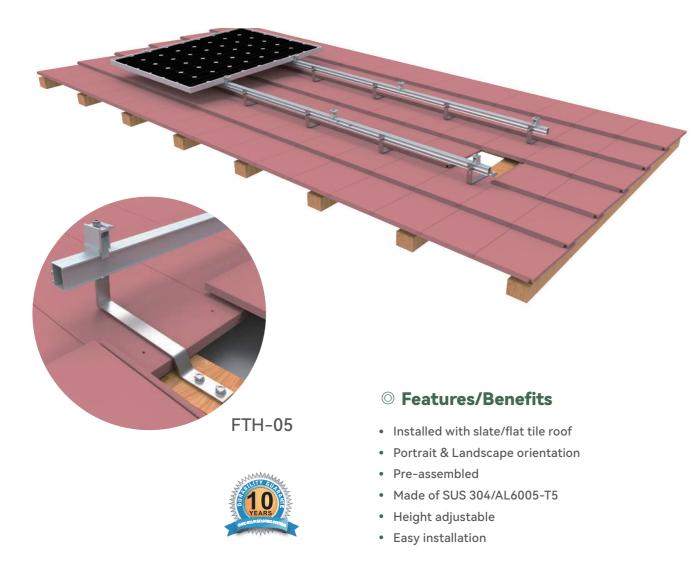
Model	PVS-AC7.4k-S-S	PVS-AC11k-T-S	PVS-AC22k-T-S				
AC Input/Output							
Nomianl grid voltage	1P/N/PE,230Vac	3P/N/PE,400Vac	3P/N/PE,400Vac				
Nominal grid frequency		50Hz/60Hz					
Grid frequency range		47Hz~63Hz					
Nominal charging power	7.4kW	11kW	22kW				
Nominal charging voltage	230V		00V				
Max.charging current	32A	16A	32A				
Protection & Function							
Integrated DC faut current detection	Yes,DC6mA						
Overload protection	Yes						
Over-temperature protection	Yes						
Flame retardant protection	Yes						
Surge protection	AC Type II						
Grounding system	TT/TN						
Metering	Yes,integrated with MID meter						
ALM(Adaptative load management)	Yes						
Automatic phase switching	Yes						
Communication							
Display	LED indicator and App						
Authentication	Plug & Play/RFID-card						
Charging mode	Eco charging/Fast Charging/Time charging/Customized charging						
Communication interface	"RS485(to inverter/meter)WLAN/Ethernet/4G(to cloud)"						
Communication protocol	OCPP						
Gerneral Dat							
Dimensions(W/H/D)	214*346*125mm						
Installation method	Wall-mounting or Pole-mounting*						
Degree of protection	IP65						
Operating temperature range	-30°C~50°C						
Relative humidity	5%~90%(Non-condensing)						
Cooling method	Natural convection						
Max. operating altitude	3000m						
Standby self-consumption	< 6.5W						
Compliance	IEC 61851-1/22,IEC 62196-1,IEC 62955,IEC 60068-2						

\*All specifications are subject to change without notice. \*For more info:Please contact us by Email or our Website.

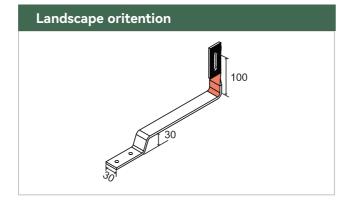
Additional smart meter required.

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#### Flat Tile Mount

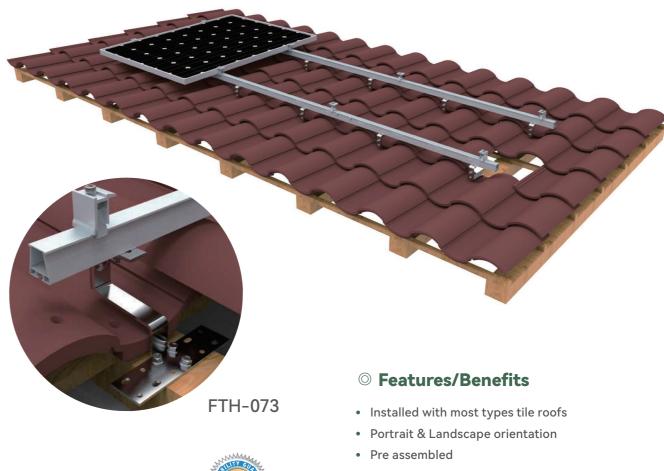


# Portrait oritention



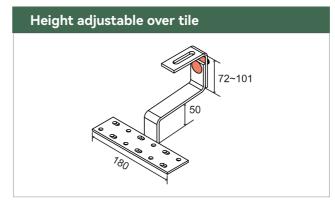
FTH-05B

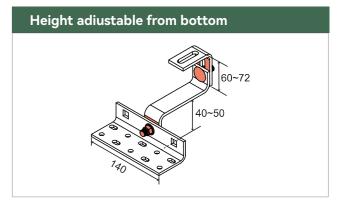
#### **Crown Mount**





- Made of SUS 304/AL6005-T5
- Height adiustable
- Easy installation
- Firmly bottom fixing





FTH-073 FTH-09V

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## **Monitor System**





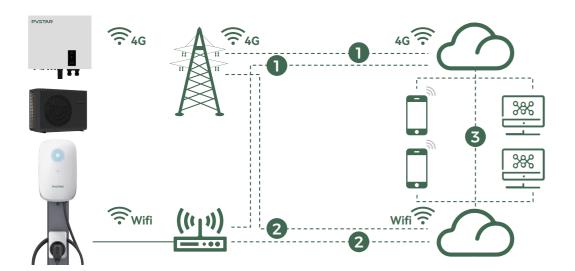


Installation Guide

## **PV Monitor System**

The monitor system provides long-term and effective monitor of PV power generation by collecting and recording the working status and power generation of inverters. The module transmits the data to the remote server through network.

Users can check the data anytime anywhere through the online monitor platform, mobile App etc., which greatly reduces the cost of monitor and ensures the efficient and stable operation of PV systems.



#### Excellent O&M - Smart cloud



#### **Monitor System**



## Remote monitor of PV systems

- Monitor of PV systems' data
- Smart maintenance
- Calculation of increment

## Safe installation management

- Security monitor
- Behaviors analysis
- Smart monitor

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# Other Innovative Service Systems

#### Smart charging

- Low-carbon for our future
- Our exploration of PV storage & charging

